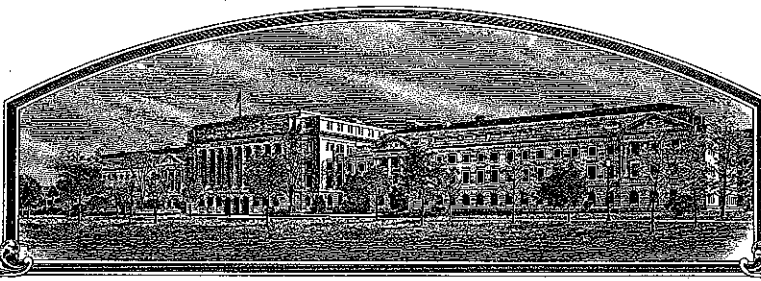


No.

200400033



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME;

Progeny Advanced Genetics, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

LETTUCE

'Napoleon'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this seventh day of August, in the year two thousand and six.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).


1. NAME OF OWNER PROGENY ADVANCED GENETICS, INC.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME PX 377		3. VARIETY NAME NAPOLEON	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 1536 B MOFFETT ST SALINAS CA 93905-3342		5. TELEPHONE (include area code) 831-751-6030		FOR OFFICIAL USE ONLY PVPO NUMBER 200400033	
		6. FAX (include area code) 831-751-6032		FILING DATE 11/28/2003	
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) CORPORATION		8. IF INCORPORATED, GIVE STATE OF INCORPORATION CALIFORNIA		9. DATE OF INCORPORATION 12/26/94	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) DARRYN GIBSON MANAGER OF RESEARCH AND DEVELOPMENT PROGENY ADVANCED GENETICS, INC 1536 B MOFFETT ST SALINAS CALIFORNIA 93905				FILING AND EXAMINATION FEES: \$ 3652.00 DATE 11/28/2003	
				CERTIFICATION FEE: \$ 768- DATE 5/23/2006	
11. TELEPHONE (include area code) 831-751-6030		12. FAX (include area code) 831-751-6032		13. E-MAIL DMAN@PROGENY.COM	
14. CROP KIND (Common Name) LETTUCE		15. GENUS AND SPECIES NAME OF CROP LACTUCA SATIVA		16. FAMILY NAME (Botanical) COMPOSITAE	
17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)			
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety		b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness			
c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety		d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional)			
e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership		f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)			
g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,705), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)		19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act <input type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input checked="" type="checkbox"/> NO (If "no", go to item 22)			
20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? IF YES, SPECIFY THE <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED NUMBER 1,2,3, etc. (If additional explanation is necessary, please use the space indicated on the reverse.)			
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES DEC 6, 2002 <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)			
24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF OWNER 		SIGNATURE OF OWNER			
NAME (Please print or type) DARRYN GIBSON		NAME (Please print or type)			
CAPACITY OR TITLE MANAGER OF RESEARCH AND DEVELOPMENT		DATE 11/17/03		CAPACITY OR TITLE 1	

Exhibit A, Revised**Details of the Development of the Variety Napoleon**

Napoleon is a Romaine lettuce variety developed the commercial variety King Henry, available from Progeny Advanced Genetics. The basis for development was single plant selection made from a seed production field of the variety King Henry in 1996. Multiple individual plants were selected at seed maturity as they were identified to have a distinct amber seed color. The individual plant selected later distinguished as Napoleon was labeled PSP96400-14-2 A/S. The individual S1 plants were harvested and packaged individually. The variety was developed by the pedigree selection breeding method.

Multiple S1 lines were identified and trialed in the Salinas Valley and Yuma lettuce production regions in 1997, and increased in our research and development seed production plot in the same year. Additional distinctions between the amber seeded plots were noted, such as plant size, segregation for the amber seed color and timing of maturity. Multiple S2 individual plant selections were made, selecting for the later maturing plants.

All S2 selections were trialed in early January in Yuma Arizona, and selection number PSR97400-348-17 A/S was rated highly in the trial, based on phenotypic uniformity, later maturity and its lack of tip burn. All advancing items were again increased in our 1998 research and development seed production field in the San Joaquin Valley. The line was noted as uniform and later maturing than the other S2 selections. Upon seed maturity the variety was noted to have the amber seed color.

The S3 seed harvested was labeled as PX 377 in September of 1998 and extensively trialed with similar type research lines in the Yuma lettuce production region. Upon evaluation of the advanced lines, PX 377 continually produced larger, later maturing plants that had less incidence of tip burn than its sister lines. Based on these characteristics, it was recommended that PX 377 would continue to be trialed. A larger

seed increase was made in 1999 in the research and development seed production field in the San Joaquin Valley. The S3 variety was selectively rogued, removing the earliest maturing plants. The variety was noted as being uniform and stable.

The S4 seed harvested was extensively trialed through out 1999 and 2000, where it again demonstrated improved tip burn resistance and slower maturity. A larger seed increase was made in our 2000 commercial seed production crop, where the variety was noted as being uniform and stable with out variants.

Large trials of the S5 seed were conducted in the Yuma lettuce production regions in 2001 where the variety continued to demonstrate an improved resistance to tip burn and slower maturity than similar type varieties. The variety as evaluated in commercial lettuce trials was indicated as being uniform, stable and with out variants.

As evaluated in seed production blocks and field trials, the PX 377 has been uniform and stable with out variants for 2 generations. The variety was named 'Napoleon' in the fall of 2002. Seed from the variety 'Napoleon' was first sold on December 6, 2002 to a customer in Yuma Arizona. Seed from this variety had not been sold or offered for sale prior to this date.

Exhibit B, Revised
Statement of Distinctness

Napoleon is a distinct romaine variety on the basis of seed color and improved tolerance to tip burn when compared to King Henry or Tall Guzmaine. Napoleon is a heavily savoyed Florida type romaine variety that is slow maturing and demonstrates an improved resistance to tip burn and amber seed color. Napoleon most closely resembles the commercial lettuce variety King Henry. In comparing Napoleon to the variety King Henry, size and yield characteristics are similar, but, Napoleon has an improved resistance to tip burn and has an amber seed color. The seed color of King Henry is black. Napoleon also differs from the commercial variety Tall Guzmaine as it also has black seed color.

See attached data sheets for tip burn data.

Additional distinctions that distinguish Napoleon from King Henry, as noted in the respective Exhibit C Documentation:

<u>Characteristic:</u>	<u>King Henry</u>	<u>Napoleon</u>
4th Leaf Stage:		
Basal Margin	Finely Dentate	Moderately Dentate
Mature Leaf:		
Green Color	Dark Green	Medium Green
Glossiness	Dull	Moderate
Blistering	Moderate	Strong
Leaf Thickness	Thick	Intermediate
Butt:		
Mid Rib	Prominently raised	Moderately Raised
Bolter Leaves:		
Color	Straight Dark Green	Curved Medium Green
Bolter Habit:		
Terminal inflorescence:	Present	Absent
Lateral Shoots	Present	Absent
Basal Side Shoots	Absent	Present

200400033

Tip Burn Trial Evaluation For Napoleon

Tip Burn Trial Evaluation For Napoleon

Trial map #: RYM04095 Location: Tacna Ranch/lot: Dog Date evald: 12/4/2004
 Wet Date: 9/26/2004 Grower: Amigo Farr Commercial \Rubicon Eval by:

Variety	Plants with Tip burn	
Plant	Napoleon	King Henry
1	0	1
2	0	0
3	0	0
4	1	0
5	0	1
6	0	0
7	0	0
8	0	0
9	0	1
10	0	0
11	0	1
12	0	1
13	0	1
14	0	0
15	1	0
16	0	1
17	0	1
18	0	0
19	0	1
20	0	1
Total plants Infected	2.0	10.0
Std Dev	5.12E-01	5.13E-01
T-test for positive plants	4.87E-03	
Probability %	99.5	
% Difference	80.0	

Tip burn Severity Rating		
Napoleon	King Henry	Plant
0	2	1
0	0	2
0	0	3
1	0	4
0	2	5
0	0	6
0	0	7
0	0	8
0	1	9
0	0	10
0	2	11
0	1	12
0	1	13
0	0	14
1	0	15
0	1	16
0	1	17
0	0	18
0	1	19
0	1	20
0.1	0.7	Avg Severity Rating
3.08E-01	7.45E-01	Std Dev
4.15E-03		T-test for severity
99.6		Probability %
84.6		% Difference

2004 00033

Tip Burn Trial Evaluation For Napoleon

Tip Burn Trial Evaluation For Napoleon

Trial map #: RSV03046 Location: King City Ranch/lot: 204 Date evald: 5/9/2003
 Wet Date: 3/1/2003 Grower: Mission Commercial \ Green Towers Eval by: dg/mk

Variety	Plants with Tip burn	
Plant	Napoleon	King Henry
1	0	1
2	0	0
3	0	0
4	0	0
5	0	0
6	1	1
7	0	0
8	0	0
9	0	1
10	0	0
11	0	1
12	0	0
13	0	1
14	0	0
15	0	0
16	0	0
17	0	1
18	0	0
19	0	0
20	0	1
Total plants Infected	1.0	7.0
Std Dev	3.01E-01	4.89E-01
T-test for positive plants	1.71E-02	
Probability %	98.3	
% Difference	85.7	

Tip burn Severity Rating		
Napoleon	King Henry	Plant
0	1	1
0	0	2
0	0	3
0	0	4
0	0	5
1	2	6
0	0	7
0	0	8
0	2	9
0	0	10
0	2	11
0	0	12
0	2	13
0	0	14
0	0	15
0	0	16
0	2	17
0	0	18
0	0	19
0	1	20
0.1	0.6	Avg Severity Rating
2.24E-01	8.83E-01	Std Dev
1.03E-02		T-test for severity
99.0		Probability %
91.7		% Difference

Tip Burn Trial Evaluation For Napoleon

Tip Burn Trial Evaluation For Napoleon

Trial map #: RSV03080 **Location:** King City **Ranch/lot:** 203 **Date evald:** 6/17/2003
Wet Date: 4/9/2003 **Grower:** Mission **Commercial \ Sun Belt** **Eval by:** dg/mk

Variety		Plants with Tip burn	
Plant	Napoleon	King Henry	
1	0	0	
2	0	0	
3	0	1	
4	0	1	
5	0	0	
6	0	0	
7	0	1	
8	0	0	
9	0	0	
10	1	1	
11	1	0	
12	0	0	
13	0	0	
14	0	0	
15	0	1	
16	0	1	
17	0	0	
18	0	1	
19	0	1	
20	0	0	
Total plants Infected		2.0	8.0
Std Dev		5.12E-01	5.03E-01
T-test for positive plants		2.85E-02	
Probability %		97.1	
% Difference		75.0	

Tip burn Severity Rating		
Napoleon	King Henry	Plant
0	0	1
0	0	2
0	1	3
0	2	4
0	0	5
0	0	6
0	2	7
0	0	8
0	0	9
1	1	10
1	0	11
0	0	12
0	0	13
0	0	14
0	2	15
0	2	16
0	0	17
0	1	18
0	1	19
0	0	20
0.1	0.6	Avg Severity Rating
3.08E-01	8.21E-01	Std Dev
1.49E-02		T-test for severity
98.5		Probability %
83.3		% Difference

U. S. Department of Agriculture
Agricultural Marketing Service
Science and Technology Program

OBJECTIVE DESCRIPTION OF VARIETY
LETTUCE *Lactuca sativa*

Exhibit C

NAME OF APPLICANT (S) PROGENY ADVANCED GENETICS, INC.	FOR OFFICIAL USE ONLY
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) 1536 B MOFFETT STREET SALINAS CALIFORNIA 93905	PVPO NUMBER 200400033
	VARIETY NAME
	EXPERIMENTAL DESIGNATION

Place numbers in the boxes for the characters which best describe this variety. Measured data should be the mean of an appropriate number (at least 10) of spaced plants. Royal Horticultural Society or any recognized color standard may be used to determine plant colors.

The location of the test area is: YUMA ARIZONA, SALINAS CALIFORNIA Color System Used: MUNSELL COLOUR CHART FOR PLANT TISSUE

1. PLANT TYPE: (See list of suggested check varieties page 4.)

☐ 0 ☒ 4

01-Cutting/Leaf
02-Butterhead
03-Bibb
04-Cos or Romaine

05-Great Lakes Group
06-Vanguard Group
07-Imperial Group
08-Eastern (Ithaca) Group

09-Stem
10-Latin
11-OTHER

2. SEED:

☒ 3

COLOR
1-White (Silver Gray)
2-Black (Gray Brown)
3-Brown (Amber)

☐ 1

LIGHT DORMANCY
1-Light Required
2-Light Not Required

☒ 2

HEAT DORMANCY
1-Susceptible
2-Not Susceptible

3. COTYLEDON TO FOURTH LEAF STAGE: NOTE: Provide a color photograph or photocopy of the fourth leaf from 20 day old seedling grown under optimal conditions.

☒ 2

SHAPE OF COTYLEDONS:

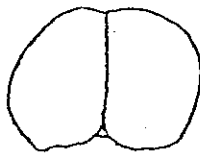
1-Broad

2-Intermediate

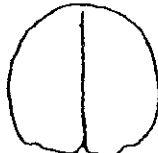
3-Spatulate

☒ 4

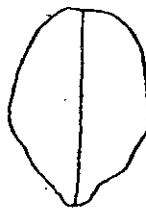
SHAPE OF FOURTH LEAF:



1



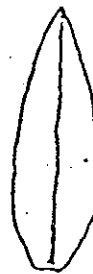
2



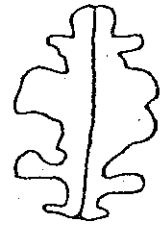
3



4



5



6

☒ 3 ☒ 7

LENGTH/WIDTH INDEX OF FOURTH LEAF: LW x 10

☐ 1

APICAL MARGIN:

1-Entire

4-Moderately Dentate

7-Lobed

☒ 4

BASAL MARGIN:

2-Crenate/Gnawed
3-Finely Dentate

5-Coarsely Dentate
6-Incised

8-OTHER (specify)

☐ 1

UNDULATION:

1-Flat

2-Slight

3-Medium

4-Marked

☒ 3

GREEN COLOR:

1-Yellow Green
2-Light Green

3-Medium Green
4-Dark Green

5-Blue Green
6-Silver Green

7-Gray Green

ANTHOCYANIN:

☐ 1

DISTRIBUTION:

1-Absent
2-Margin Only

3-Spotted
4-Throughout

5-OTHER (specify)

☐ 1

CONCENTRATION:

1-Light

2-Moderate

3-Intense

☐ 1

ROLLING:

1-Absent

2-Present

☒ 2

CUPPING:

1-Uncupped

2-Slight

3-Markedly

☒ 2

DECEIVING:

1-None

2-Slight

3-Markedly

4. MATURE LEAVES (observe harvest-mature outer leaves):

NOTE: Provide color photo of harvest-mature leaves which accurately shows color and margin characteristics.

MARGIN:

1	INCISION DEPTH: (deepest penetration of the margin)	1-Absent/Shallow (Dark Green Boston)	2-Moderate (Vanguard)	3-Deep (Great Lakes 659)
1	INDENTATION: (finest divisions of the margin)	1-Entire (Dark Green Boston)	3-Deeply Dentate (Great Lakes 659)	5-OTHER (specify)
		2-Shallowly Dentate (Great Lakes 65)	4-Crenate (Vanguard)	
2	UNOULATION OF THE APICAL MARGIN:	1-Absent/Slight (Dark Green Boston)	2-Moderate (Vanguard)	3-Strong (Great Lakes 65)
3	GREEN COLOR:	1-Very Light Green (Bibb)	3-Medium Green (Great Lakes)	5-Very Dark Green
		2-Light Green (Minetto)	4-Dark Green (Vanguard)	6-OTHER
ANTHOCYANIN (grown at or below 10 C):				
1	DISTRIBUTION:	1-Absent	3-Spotted (Calif. Cream Butter)	5-OTHER (specify)
		2-Margin Only (Big Boston)	4-Throughout (Prize Head)	
-	CONCENTRATION:	1-Light (Iceberg)	2-Moderate (Prize Head)	3-Intense (Ruby)
2	SIZE:	1-Small	2-Medium	3-Large
2	GLOSSINESS:	1-Dull (Vanguard)	2-Moderate (Salinas)	3-Glossy (Great Lakes)
3	BLISTERING:	1-Absent/Slight (Salinas)	2-Moderate (Vanguard)	3-Strong (Prize Head)
2	LEAF THICKNESS:	1-Thin	2-Intermediate	3-Thick
1	TRICHOMES:	1-Absent (smooth)	2-Present (spiny)	

5. PLANT (at market stage. Choose a comparison variety appropriate for this type.):

39	SPREAD OF FRAME LEAVES:	39 cm	KING HENRY	(specify comparison variety)
	cm This Variety			
39	HEAD DIAMETER (market trimmed with single cap leaf):	39 cm	KING HENRY	(specify comparison variety)
	cm This Variety			
5	HEAD SHAPE:	1-Flattened	3-Spherical	5-Non-Heading
		2-Slightly Flattened	4-Elongate	6-OTHER
2	HEAD SIZE CLASS:	1-Small	2-Medium	3-Large
24	HEAD COUNT PER CARTON			
627	HEAD WEIGHT:	717 g	KING HENRY	(specify comparison variety)
	g This Variety			
2	HEAD FIRMNESS:	1-Loose	3-Firm	
		2-Moderate	4-Very Firm	

6. BUTT (bottom of market-trimmed head):

3	SHAPE:	1-Slightly Concave	2-Flat	3-Rounded
2	MIDRIB:	1-Flattened (Salinas)	2-Moderately Raised	3-Prominently Raised (Great Lakes 659)

7. CORE (stem of market-trimmed head):

35	mm Diameter at base of head		
111	Ratio of head diameter/core diameter		
42	Core height from base of head to apex:	46 mm	KING HENRY
	mm This Variety		(specify comparison variety)

8. BOLTING (Give First Water Date 5/6/03): NOTE: First Water Date is the date seed first receives adequate moisture to germinate. This can and often does equal the planting date.

69	Number of days from First Water Date to seed stalk emergence (summer conditions):	67	KING HENRY	(specify comparison variety)
	This Variety			
2	BOLTING CLASS:	1-Very Slow	3-Medium	5-Very Rapid
		2-Slow	4-Rapid	
96	Height of mature seed stalk:	90	KING HENRY	
	cm This Variety			

31

Spread of Bolter Plant (at widest point):

cm This Variety

37 cm

KING HENRY

(specify comparison variety)

2

BOLTER LEAVES:

1-Straight

2-Curved

1

MARGIN:

1-Entire

2-Dentate

2

COLOR:

1-Light Green

2-Medium Green

3-Dark Green

BOLTER HABIT:

1

TERMINAL
INFLORESCENCE:

1-Absent

2-Present

1

LATERAL SHOOTS:
(above head)

1-Absent

2-Present

2

BASAL SIDE SHOOTS:

1-Absent

2-Present

9. MATURITY (earliness of harvest-mature head formation):

NOTE: Complete this section for at least one season.

SEASON	Applic. 1/ # of days	Check 2/ # of days	CHECK VARIETY 3/
Spring	83	81	KING HENRY
Summer	72	70	KING HENRY
Fall	89	87	KING HENRY
Winter	110	108	KING HENRY

Give planting date(s) and location(s):

Spring MARCH 1; SALINAS VALLEY CA

Summer JUNE 25; SALINAS VALLEY CA

Fall SEPT 15; YUMA AZ

Winter NOV 20; YUMA AZ

1/ First water date to harvest.

3/ Fill in check variety name on the appropriate line.

10. ADAPTATION:

PRIMARY REGIONS OF ADAPTION (tested and proven adapted):

(0-Not tested

1-Not Adapted

2-Adapted)

2

Southwest (Calif., Ariz. desert)

2

West Coast

0

Northeast

0

Northcentral

2

Southeast

0

OTHER

SEASON:

2

Spring (area SALINAS VALLEY CA)

2

Fall (area YUMA AZ)

2

Summer (area SALINAS VALLEY CA)

2

Winter (area YUMA AZ)

0

GREENHOUSE:

0-Not tested

1-Not Adapted

2-Adapted

3

SOIL TYPE:

1-Mineral

2-Organic

3-Both

11. DISEASES AND STRESS REACTIONS (0=Not tested; 1=Susceptible; 2=Intermediate; 3=Resistant; 4=Highly resistant; 5=Tolerant):

VIRUS

- ☒ Big Vein
☐ Lettuce Mosaic
☐ Cucumber Mosaic
☐ Broad Bean Wilt
☐ Turnip Mosaic
☐ Beet Western Yellows
☐ Lett. Infectious Yellows
☐ Other Virus _____

FUNGAL/BACTERIAL

- ☒ Corky Root Rot (Pythium Root Rot) *Rhizomonas Suberifaciens*
☐ Downy Mildew (Races _____)
☐ Powdery Mildew
☐ Sclerotinia Rot
☐ Bacterial Soft Rot (Pseudomonas spp. & others)
☐ Botrytis (Gray Mold)
☐ OTHER _____

INSECTS

- ☐ Cabbage Loopers
☐ Root Aphids
☒ Green Peach Aphid
☐ Other Insect _____

PHYSIOLOGICAL/STRESS

- ☒ Tipburn
☒ Heat
☐ Drought
☒ Cold
☐ Salt
☐ Brown Rib (Rib Discoloration, Rib Blight)
☐ OTHER _____

POST HARVEST

- ☒ Pink Rib
☒ Russet Spotting
☒ Rusty Brown Discoloration
☐ Internal Rib Necrosis (Blackheart, Gray Rib, Gray Streak)
☐ Brown Stain

12. BIOCHEMICAL OR ELECTROPHORETIC MARKERS:

13. COMMENTS:

SUGGESTED CHECK VARIETIES

- TYPE
 1) CUTTING/LEAF
 2) BUTTERHEAD
 3) BIBB
 4) COS, OR ROMAINE
 5) GREAT LAKES GROUP
 6) VANGUARD GROUP
 7) IMPERIAL GROUP

- CHECK VARIETY
 SALAD BOWL
 DARK GREEN BOSTON
 BIBB
 PARRIS ISLAND
 GREAT LAKES 659-700
 VANGUARD

200400033

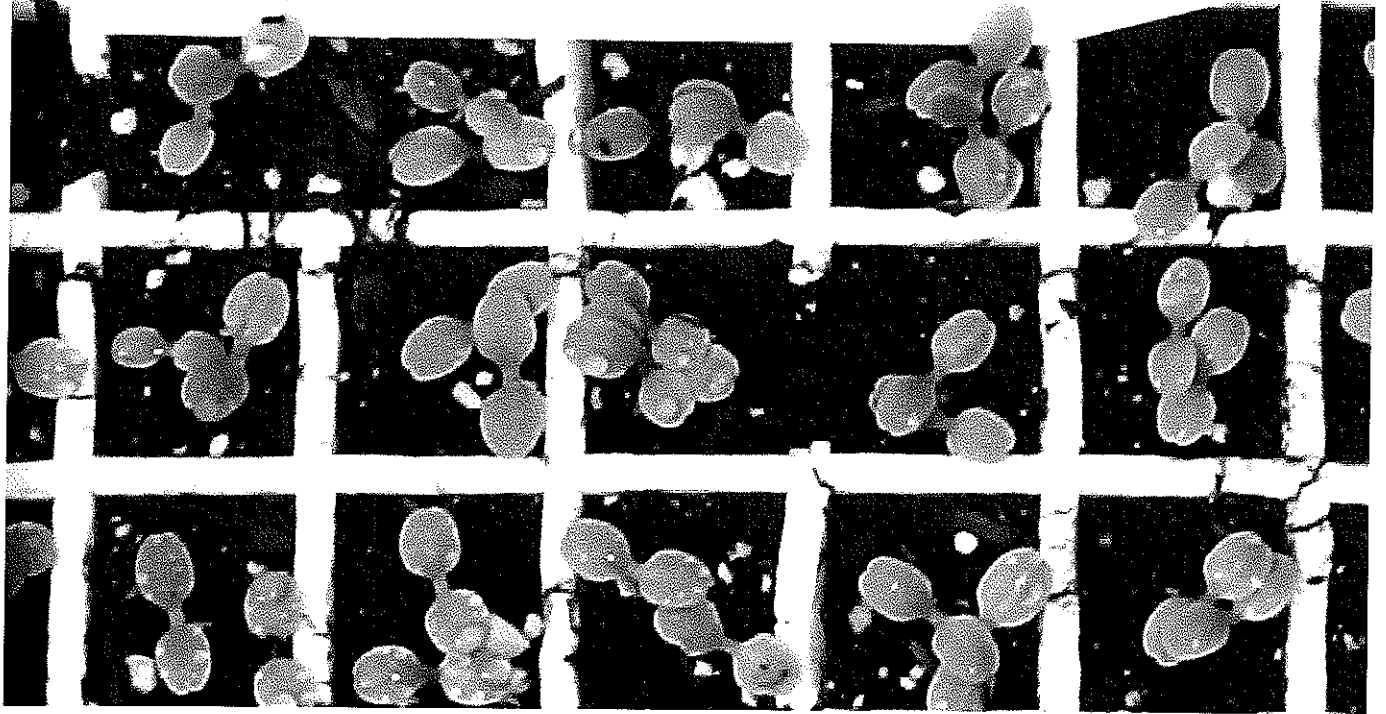
NAPOLEON



NAPOLEON

200400033

NAPOLEON



NAPOLEON



PROGENY

advanced genetics®

200400033

Exhibit D

Additional Description of the Variety

Napoleon is a corky root resistant Florida type Romaine lettuce variety. The variety has a very strong heat tolerance and produces a dense heart. The most distinguishing and unique characteristic is that Napoleon produces gold or amber colored seed.

Experimental Set Up for Tip burn Evaluation

Replicated trials comparing the lettuce variety Napoleon to King Henry and Tall Guzmaine were planted in Yuma Arizona and Salinas California for comparative purposes. Trials were planted in plots containing at least 200 mature plants of each variety.

At market maturity the trials were evaluated for characteristics relating to size, weight, and over all performance including measurements of core length and susceptibility to tip burn. 12 plants were evaluated for characteristics relating to size and weight and an additional 20 plants of each variety were evaluated for their respective tip burn susceptibility.

In conducting the tip burn portion of the evaluation, 20 market mature plants were cut at random. One by one the heads were sliced vertically and the core removed. The leaves were removed one by one and inspected for symptoms of tip burn. When found, it was noted that the head had tip burn, and the severity of the tip burn was rated on a scale of 1-5. A 1 indicating that the first symptoms associated with tip burn are present but isolated to one area of the plant. A lettuce head with a 1 rating for tip burn is still marketable. A rating of 2 is given to a plant that has similar symptoms as a 1 but is found in more than one location in the plant. The marketability of a plant with a score of 2 is questionable. A rating of 3 indicates that the plant has more advanced stages of the physiological breakdown in at least one isolated area with in the head. The leaf tissue has begun to decay, and is dark brown in color. The decayed area is at least one square cm in area. A rating of 4 is given to a plant with the same stage of tip burn as a 3 but is not isolated one area of the plant. A rating of 5 was given to the most severe decay. A lettuce head with a rating of 5 has severe discolorization and loss of leaf texture. It can be isolated to one area of the plant if it comprises an area greater than 3 square cm's, or spread through out the plant.

200400033

Tip Burn Trial Evaluation For Napoleon

Tip Burn Trial Evaluation For Napoleon

Trial map #: RSV03046 Location: King City Ranch/lot: 204 Date evald: 5/9/2003
 Wet Date: 3/1/2003 Grower: Mission Commercial \ Green Towers Eval by: dg/mk

Variety	Plants with Tip burn	
Plant	Napolcon	Tall Guzmaine
1	0	1
2	0	1
3	0	1
4	0	0
5	0	0
6	1	1
7	0	0
8	0	0
9	0	1
10	0	0
11	0	0
12	0	1
13	0	1
14	0	1
15	0	1
16	0	0
17	0	0
18	0	1
19	0	0
20	0	1
Total plants Infected	1.0	11.0
Std Dev	3.01E-01	5.10E-01
T-test for positive plants	2.72E-04	
Probability %	100.0	
% Difference	90.9	

Tip burn Severity Rating		
Napoleon	Tall Guzmaine	Plant
0	2	1
0	3	2
0	2	3
0	0	4
0	0	5
1	2	6
0	0	7
0	0	8
0	2	9
0	0	10
1	0	11
0	2	12
0	3	13
0	3	14
1	2	15
0	0	16
0	0	17
0	2	18
0	0	19
0	1	20
0.2	1.2	Avg Severity Rating
3.66E-01	1.20E+00	Std Dev
5.84E-04		T-test for severity
99.9		Probability %
87.5		% Difference

200400033

Tip Burn Trial Evaluation For Napoleon

Tip Burn Trial Evaluation For Napoleon

Trial map #: RYM04095 **Location:** Tacna **Ranch/lot:** Dog **Date evald:** 12/4/2004
Wet Date: 9/26/2004 **Grower:** Amigo Farr Commercial \ Rubicon **Eval by:**

Variety	Plants with Tip burn	
Plant	Napoleon	Tall Guzmaine
1	0	1
2	0	1
3	0	1
4	1	0
5	0	0
6	0	0
7	0	1
8	0	0
9	0	1
10	0	0
11	0	0
12	0	1
13	0	0
14	0	0
15	1	1
16	0	1
17	0	1
18	0	0
19	0	1
20	0	0
Total plants Infected	2.0	10.0
Std Dev	5.12E-01	5.13E-01
T-test for positive plants	4.87E-03	
Probability %	99.5	
% Difference	80.0	

Tip burn Severity Rating		
Napoleon	Tall Guzmaine	Plant
0	2	1
0	2	2
0	1	3
1	0	4
0	0	5
0	0	6
0	2	7
0	0	8
0	2	9
0	0	10
0	0	11
0	1	12
0	0	13
0	0	14
1	1	15
0	1	16
0	1	17
0	0	18
0	1	19
0	0	20
0.1	0.7	Avg Severity Rating
3.08E-01	8.01E-01	Std Dev
3.39E-03		T-test for severity
99.7		Probability %
85.7		% Difference

2004 00033

Tip Burn Trial Evaluation For Napoleon

Tip Burn Trial Evaluation For Napoleon

Trial map #: RSV03080 Location: King City Ranch/lot: 203 Date evald: 6/17/2003
 Wet Date: 4/9/2003 Grower: Mission Commercial \ Sun Belt Eval by: dg/mk

Variety	Plants with Tip burn	
Plant	Napoleon	Tall Guzmaine
1	0	1
2	0	1
3	0	0
4	0	0
5	0	0
6	0	0
7	0	1
8	0	1
9	0	0
10	1	0
11	1	0
12	0	1
13	0	1
14	0	1
15	0	0
16	0	0
17	0	1
18	0	1
19	0	0
20	0	1
Total plants Infected	2.0	10.0
Std Dev	5.12E-01	5.13E-01
T-test for positive plants	4.87E-03	
Probability %	99.5	
% Difference	80.0	

Tip burn Severity Rating		
Napoleon	Tall Guzmaine	Plant
0	2	1
0	1	2
0	0	3
0	0	4
0	0	5
0	0	6
0	1	7
0	2	8
0	0	9
1	0	10
1	0	11
0	1	12
0	2	13
0	1	14
0	0	15
0	0	16
0	2	17
0	2	18
0	0	19
0	2	20
0.1	0.8	Avg Severity Rating
3.08E-01	8.94E-01	Std Dev
2.05E-03		T-test for severity
99.8		Probability %
87.5		% Difference

Tip Burn Trial Evaluation For Napoleon

200400033

Tip Burn Trial Evaluation For Napoleon

Trial map #: RSV03080 Location: King City Ranch/lot: 203 Date evald: 6/17/2003
Wet Date: 4/9/2003 Grower: Mission Commercial \ Sun Belt Eval by: dg/mk

Variety	Plants with Tip burn	
Plant	Napoleon	Tall Guzmaine
1	0	1
2	0	1
3	0	0
4	0	0
5	0	0
6	0	0
7	0	1
8	0	1
9	0	0
10	1	0
11	1	0
12	0	1
13	0	1
14	0	1
15	0	0
16	0	0
17	0	1
18	0	1
19	0	0
20	0	1
Total plants Infected	2.0	10.0
Std Dev	5.12E-01	5.13E-01
T-test for positive plants	4.87E-03	
Probability %	99.5	
% Difference	80.0	

Tip burn Severity Rating		
Napoleon	Tall Guzmaine	Plant
0	2	1
0	1	2
0	0	3
0	0	4
0	0	5
0	0	6
0	1	7
0	2	8
0	0	9
1	0	10
1	0	11
0	1	12
0	2	13
0	1	14
0	0	15
0	0	16
0	2	17
0	2	18
0	0	19
0	2	20
0.1	0.8	Avg Severity Rating
3.08E-01	8.94E-01	Std Dev
2.05E-03		T-test for severity
99.8		Probability %
87.5		% Difference

200400033

Tip Burn Trial Evaluation For Napoleon

Tip Burn Trial Evaluation For Napoleon

Trial map #: SYM05002 Location: Texas Hill Ranch/lot: 27/6 Date evald: 4/4/2005
 Wet Date: 1/18/2005 Grower: Amigo Commercial \ Green Forrest Eval by: mk

Variety	Plants with Tip burn	
Plant	Napoleon	Tall Guzmaine
1	0	0
2	0	0
3	0	0
4	0	1
5	0	0
6	0	1
7	0	1
8	0	1
9	0	1
10	0	1
11	0	0
12	0	0
13	0	1
14	0	1
15	0	0
16	0	0
17	0	1
18	0	1
19	0	0
20	0	1
Total plants Infected	0.0	11.0
Std Dev	0.00E+00	5.10E-01
T-test for positive plants	2.33E-05	
Probability %	100.0	
% Difference	100.0	

Tip burn Severity Rating		
Napoleon	Tall Guzmaine	Plant
0	0	1
0	0	2
0	0	3
0	2	4
0	0	5
0	2	6
0	1	7
0	2	8
0	1	9
0	1	10
0	0	11
0	0	12
0	2	13
0	1	14
0	0	15
0	0	16
0	2	17
0	2	18
0	0	19
0	1	20
0.0	0.9	Avg Severity Rating
0.00E+00	8.75E-01	Std Dev
1.01E-04		T-test for severity
100.0		Probability %
100.0		% Difference

Trialing Protocol for Intellectual Property Protection.

I. Set Up

1. Parental lines and competing varieties are identified.
2. Primary slots are identified.
3. Necessary accession lines are located and purchased/received from seed dealers or growers.
4. All varieties are assigned a number to maintain integrity, and anonymity.
5. Trials are set up in the Progeny warehouse with all necessary varieties. Variety arrangement for trial is diagramed.

II. Planting

1. Commercial plantings are located by contacting commercial growers during the planting slot recommended for the variety.
2. Field is located during commercial planting, and the necessary rows and area is marked off by a Progeny employee with proper training.
3. Varieties are planted according to diagram, in 100 ft. ranges.
4. All varieties are planted in same manner, to mimic the planting of the commercial variety as closely as possible.
5. A trial map is drawn diagramming the trial, the trial location in the field, and directions to the field.

III. Maintenance

1. All varieties are treated identically. The grower handles all watering, fertilization, and pest control, as if it was no different from the commercial field it is grown with.
2. Thinning of the trial is done by a crew contracted by the commercial grower.



IV. Evaluation

1. Evaluations are done as near to the time of the commercial harvest as possible by knowledgeable Progeny employees.
2. The evaluation is conducted "blindly". The evaluator(s) do not have the key to the trial at the time of evaluation.
3. 24 heads of each variety are evaluated.
 - a. The frame diameter of 24 random plants are measured to the nearest cm.
 - b. 24 mature heads of each variety are cut to the cap leaf.
 - c. The heads are carried to an adequate work station
 - d. The following measurements are then conducted and recorded:
 1. Each head is weighed to the nearest gram.
 2. The core diameter of each head is measured to the nearest mm.
 3. The heads are then sliced in to halves, discarding 1 half.
 4. The core lengths (from the cut stem to the core tip) are measured to the nearest mm.
 5. The head length (from the cut stem to the cap leaf) is measured to the nearest mm.
 6. The head diameter (at its widest point) is measured to the nearest mm.
 7. The ideal maturity or harvest date is then estimated based on the solidity of the head, the core length and any other physiological characteristics present.
 8. The leaf color is documented using the Munsell Color Charts for Plant Tissue.
 - e. From these measurements, we then use an Excell program to calculate the averages, the standard deviations and the T-Tests for the compared varieties.

Trial map #: SYM00385 Location: North Yuma Ranch/lot: Cocopah 14 Date evald: 1/12/01
 Wet Date: 10/15/00 Grower: Mellon/D'An Commercial Y Green Towers Eval by: dg/t

Sample #	Core Diameter (mm)		Core Length (mm)		Heart Length (mm)		Head Length (mm)		Head length:Core Length		Frame diam (cm)		Head wt. (g)	
	Napoleon	King Henry	Napoleon	King Henry	Napoleon	King Henry	Napoleon	King Henry	Napoleon	King Henry	Napoleon	King Henry	Napoleon	King Henry
1	35.0	31.0	30.0	32.0	260.0	315.0	310.0	335.0	10.3	10.5	38	34	531	485
2	30.0	30.0	26.0	30.0	200.0	270.0	280.0	285.0	10.8	9.5	33	35	449	522
3	37.0	35.0	34.0	31.0	260.0	300.0	310.0	315.0	9.1	10.2	41	37	585	745
4	30.0	33.0	35.0	35.0	240.0	300.0	290.0	330.0	8.3	9.4	40	34	610	646
5	35.0	32.0	34.0	35.0	250.0	290.0	300.0	335.0	8.8	9.6	38	34	499	634
6	34.0	31.0	35.0	39.0	350.0	300.0	298.0	345.0	8.5	8.8	33	33	605	500
7	33.0	33.0	24.0	35.0	250.0	295.0	300.0	320.0	12.5	9.1	34	33	750	435
8	30.0	34.0	30.0	34.0	250.0	290.0	320.0	310.0	10.7	9.1	34	35	515	598
9	39.0	30.0	36.0	34.0	260.0	280.0	320.0	320.0	6.5	9.4	37	33	465	475
10	30.0	30.0	40.0	31.0	240.0	290.0	310.0	320.0	7.8	10.3	36	34	458	476
11	33.0	40.0	30.0	41.0	245.0	290.0	310.0	350.0	10.3	8.5	34	36	640	675
12	37.0	42.0	35.0	36.0	250.0	310.0	285.0	340.0	8.1	9.4	40	35	429	505
13	30.0	39.0	30.0	35.0	260.0	300.0	310.0	330.0	10.3	9.4	37	37	606	595
14	36.0	35.0	30.0	34.0	290.0	270.0	320.0	320.0	10.7	9.4	37	35	604	529
15	33.0	31.0	40.0	30.0	260.0	280.0	340.0	300.0	8.5	10.0	40	35	531	555
16	32.0	30.0	27.0	35.0	270.0	300.0	310.0	315.0	11.5	9.1	41	35	426	535
17	30.0	36.0	30.0	29.0	210.0	385.0	270.0	315.0	9.0	10.9	41	35	442	560
18	33.0	34.0	30.0	35.0	265.0	285.0	320.0	335.0	10.7	8.6	33	33	640	547
19	35.0	33.0	30.0	32.0	245.0	315.0	340.0	335.0	11.3	10.5	38	34	592	542
20	33.0	31.0	25.0	28.0	230.0	275.0	270.0	305.0	10.8	10.9	36	35	537	570
21	31.0	30.0	40.0	29.0	235.0	270.0	270.0	290.0	6.8	10.0	36	33	446	529
22	33.0	30.0	30.0	40.0	240.0	265.0	290.0	310.0	9.7	7.8	35	35	762	576
23	35.0	32.0	34.0	32.0	240.0	315.0	310.0	342.0	9.1	10.7	39	37	596	565
24	30.0	30.0	20.0	35.0	225.0	27.0	300.0	30.0	15.0	0.9	38	33	366	709
Average	33.1	33.0	31.5	33.6	251.0	284.0	299.9	308.4	9.8	9.3	37.2	34.6	544.3	562.8
Stdev	2.65258966	3.40076718	5.08175908	3.398369174	28.36022807	59.8610559	23.640269	61.7018897	1.861405904	1.951849552	2.48437144	1.28254728	99.4583884	75.7700564
T test	0.92499871		0.08920988		0.018570944		0.5316773		0.328303095		3.3239E-05		0.4722081	
Probability %	7.5		91.1		98.1		46.8		67.2		100.0		52.8	

Trial map #: RYM00128 Location: Roll Ranch/lot: 4A Date evald: 3/27/01
 Wet Date: 12/9/00 Grower: Amigo Commercial V Clemente Eval by: deachmt

	Date Mature	Days to Maturity	Color
Napoleon	3/29/01	110	5gy4/6
KingHenry	3/27/01	108	5gy5/6

Sample #	Core Diameter (mm)		Core Length (mm)		Heart Length (mm)		Head length (mm)		Head length: Core Length		Frame diam (cm)		Head wt. (g)	
	Napoleon	KingHenry	Napoleon	KingHenry	Napoleon	KingHenry	Napoleon	KingHenry	Napoleon	KingHenry	Napoleon	KingHenry	Napoleon	KingHenry
1	40.0	41.0	70.0	77.0	235.0	255.0	315.0	310.0	4.5	4.0	44	44	897	746
2	38.0	50.0	50.0	66.0	235.0	255.0	390.0	320.0	7.8	4.8	41	41	775	808
3	45.0	36.0	72.0	80.0	255.0	280.0	310.0	340.0	4.3	4.3	40	45	828	609
4	40.0	39.0	70.0	90.0	245.0	275.0	300.0	320.0	4.3	3.6	41	43	674	553
5	41.0	39.0	65.0	66.0	245.0	260.0	320.0	325.0	4.9	4.9	44	40	740	695
6	35	40	60	71	240	265	265	340	4.4	4.8	44	49	1095	847
7	42	40	55	66	245	255	270	380	4.9	5.8	44	44	568	745
8	35	44	85	50	265	265	320	330	3.8	6.6	44	48	793	814
9	39.0	39.0	85.0	76.0	255.0	260.0	330.0	300.0	3.9	3.9	42	46	779	720
10	39.0	38.0	90.0	75.0	265.0	270.0	330.0	335.0	3.7	4.5	42	45	765	697
11	38.0	37.0	75.0	80.0	265.0	265.0	340.0	300.0	4.5	3.8	47	46	702	601
12	40.0	40.0	75.0	80.0	235.0	265.0	300.0	325.0	4.0	4.1	45	45	535	830
13	35.0	40.0	70.0	70.0	255.0	295.0	320.0	345.0	4.6	4.9	44	48	860	891
14	40.0	39.0	75.0	65.0	235.0	260.0	310.0	320.0	4.1	4.9	40	47	686	648
15	42.0	40.0	80.0	87.0	250.0	265.0	300.0	310.0	3.8	3.6	43	46	528	737
16	37.0	40.0	65.0	80.0	220.0	250.0	285.0	310.0	4.4	3.9	41	49	710	1095
17	40.0	45.0	60.0	100.0	260.0	260.0	330.0	310.0	5.5	3.1	43	48	801	625
18	45.0	39.0	65.0	75.0	255.0	255.0	300.0	320.0	4.6	4.3	44	47	748	690
19	40.0	45.0	75.0	70.0	260.0	255.0	300.0	340.0	4.0	4.9	45	48	641	755
20	39.0	40.0	65.0	100.0	250.0	275.0	300.0	335.0	4.6	3.4	44	46	525	881
21	38.0	40.0	80.0	85.0	270.0	276.0	340.0	330.0	4.3	3.9	41	47	1049	956
22	43.0	39.0	70.0	69.0	250.0	250.0	320.0	320.0	4.6	4.6	40	46	616	1085
23	40.0	35.0	80.0	72.0	280.0	255.0	340.0	320.0	4.3	4.4	43	46	701	836
24	42.0	35.0	65.0	75.0	260.0	260.0	340.0	325.0	5.2	4.3	45	49	761	1323
Average	39.7	40.0	70.9	76.0	251.3	263.6	315.6	325.4	4.5	4.4	43.0	46.1	740.7	799.5
Stan dev	2.7103532	3.31006371	9.74419188	11.18414704	13.69306394	10.62776	26.139779	16.998308	0.829354213	0.774635517	1.87614699	2.1450989	144.129314	177.972147
T test	0.73990309		0.09729532		0.001090069		0.130796		0.506664646		2.4979E-06		0.21518561	
Probability %	26.0		90.3		99.9		86.9		49.3		100.0		78.5	

Trial map #: SYM00385 Location: North Yuma Ranch/lot: Cocopah 14 Date eval'd: 1/12/01
 Wet Date: 10/15/00 Grower: Mellon/D'Arrig Commercial Green Towers Eval by: dg/jt

Sample #	Core Diameter (mm)		Core Length (mm)		Heart Length (mm)		Head Length (mm)		Head length:Core Length		Frame diam (cm)		Head wt. (g)	
	Tall	Guzmaine	Tall	Guzmaine	Tall	Guzmaine	Tall	Guzmaine	Tall	Guzmaine	Tall	Guzmaine	Tall	Guzmaine
1	34.0	35.0	31.0	30.0	235.0	260.0	280.0	310.0	9.0	10.3	30	38	528	531
2	37.0	30.0	30.0	26.0	230.0	200.0	280.0	280.0	9.3	9.3	32	33	610	449
3	36.0	37.0	31.0	22.0	255.0	260.0	310.0	310.0	14.1	9.1	32	41	337	585
4	33.0	30.0	30.0	35.0	260.0	240.0	310.0	290.0	10.3	8.3	34	40	621	610
5	32.0	35.0	20.0	34.0	260.0	250.0	300.0	300.0	15.0	8.8	35	38	444	499
6	33.0	34.0	25.0	35.0	240.0	350.0	300.0	298.0	12.0	8.5	36	38	479	605
7	36.0	33.0	32.0	24.0	260.0	250.0	330.0	300.0	10.3	12.5	38	34	538	730
8	35.0	30.0	30.0	30.0	260.0	250.0	300.0	320.0	10.7	10.7	35	34	355	515
9	31.0	39.0	30.0	36.0	295.0	260.0	290.0	235.0	9.7	6.5	38	37	504	465
10	34.0	30.0	25.0	40.0	280.0	240.0	310.0	310.0	12.4	7.8	38	36	470	458
11	38.0	33.0	35.0	35.0	250.0	245.0	320.0	310.0	9.1	10.3	34	34	452	640
12	35.0	37.0	35.0	35.0	260.0	250.0	310.0	285.0	8.9	8.1	37	40	374	429
13	30.0	30.0	32.0	30.0	260.0	260.0	290.0	310.0	16.0	10.7	37	37	440	604
14	40.0	36.0	20.0	30.0	260.0	290.0	320.0	320.0	12.0	8.5	36	40	606	531
15	36.0	33.0	20.0	40.0	230.0	260.0	240.0	340.0	14.5	11.5	39	40	452	442
16	32.0	32.0	20.0	27.0	240.0	270.0	290.0	310.0	8.6	9.0	38	41	686	426
17	34.0	30.0	35.0	30.0	240.0	210.0	300.0	270.0	13.0	10.7	38	33	352	640
18	32.0	33.0	20.0	30.0	220.0	265.0	260.0	320.0	11.6	11.3	37	38	553	592
19	30.0	35.0	25.0	30.0	260.0	245.0	290.0	340.0	12.9	10.8	35	36	330	537
20	38.0	33.0	21.0	25.0	230.0	230.0	270.0	270.0	11.9	6.8	37	36	576	446
21	35.0	31.0	26.0	40.0	280.0	235.0	310.0	270.0	10.4	9.7	38	35	606	762
22	35.0	33.0	26.0	30.0	230.0	240.0	270.0	290.0	11.6	9.1	38	39	389	596
23	30.0	35.0	25.0	34.0	245.0	240.0	290.0	310.0	11.5	15.0	38	38	618	366
24	30.0	30.0	20.0	20.0	170.0	225.0	230.0	300.0	11.4	9.8	35.9	37.2	486.0	544.3
Average	34.2	33.1	26.5	31.5	247.9	251.0	291.7	299.9	2.095012901	1.861405904	2.465706825	2.48457144	107.8966813	99.4583884
Stan dev	2.792329037	2.65258966	5.356663195	5.08175908	24.66808652	28.3602281	24.43565938	23.64026901	7.97E-03		7.72E-02		5.74E-02	
T test	1.75E-01		1.78E-03		6.86E-01		2.41E-01		99.2		92.3			
Probability %	82.5		99.8		31.4		75.9							

Trial map #: RYM00128 Location: Roll Ranch/lot: 4A Date evald: 3/27/01
 Wet Date: 12/9/00 Grower: Amigo Commercial Y Clemente Eval by: dgaclmjt

	Date Mature	Days to Maturity	Color
TallGuzmain	3/26/01	107	5gy 4/6
Napoleon	3/29/01	110	5gy 4/6

Sample #	Core Diameter (mm)		Core Length (mm)		Heart Length (mm)		Head Length (mm)		Head length: Core Length		Frame diam (cm)		Head wt. (g)	
	TallGuzmain	Napoleon	TallGuzmain	Napoleon	TallGuzmain	Napoleon	TallGuzmain	Napoleon	TallGuzmain	Napoleon	TallGuzmain	Napoleon	TallGuzmain	Napoleon
1	40.0	40.0	80.0	70.0	255.0	235.0	310.0	315.0	3.9	4.5	40	44	788	897
2	40.0	38.0	70.0	50.0	250.0	235.0	310.0	390.0	4.4	7.8	43	41	866	775
3	40.0	45.0	85.0	72.0	255.0	255.0	340.0	310.0	4.0	4.3	43	40	860	828
4	40.0	40.0	76.0	70.0	270.0	245.0	310.0	300.0	4.1	4.3	39	41	1012	674
5	40.0	41.0	80.0	65.0	255.0	245.0	310.0	320.0	3.9	4.9	40	44	765	740
6	35.0	35.0	95.0	60	275.0	240	310.0	265	3.3	4.4	40	44	763	1095
7	39.0	42	82.0	55	260.0	245	330.0	270	4.0	4.9	39	44	708	568
8	38.0	35	75.0	85	250.0	265	300.0	320	4.0	3.8	44	44	746	793
9	40.0	39.0	79.0	85.0	255.0	255.0	310.0	330.0	3.9	3.9	43	42	800	779
10	39.0	39.0	80.0	90.0	240.0	265.0	300.0	330.0	3.8	3.7	43	42	669	765
11	37.0	38.0	70.0	75.0	265.0	265.0	310.0	340.0	4.4	4.5	43	43	796	702
12	40.0	40.0	70.0	75.0	235.0	235.0	310.0	300.0	4.4	4.0	39	45	899	535
13	39.0	35.0	80.0	70.0	260.0	255.0	310.0	320.0	3.9	4.6	36	44	1037	860
14	43.0	40.0	80.0	75.0	270.0	235.0	330.0	310.0	4.1	4.1	44	40	825	686
15	42.0	42.0	70.0	80.0	250.0	250.0	310.0	300.0	4.4	3.8	44	43	907	528
16	40.0	37.0	90.0	65.0	255.0	220.0	330.0	285.0	3.7	4.4	44	41	1061	710
17	40.0	40.0	69.0	60.0	260.0	260.0	320.0	330.0	4.6	5.5	45	43	1381	801
18	39.0	45.0	60.0	65.0	255.0	255.0	325.0	300.0	5.4	4.6	39	44	700	748
19	39.0	40.0	80.0	75.0	270.0	260.0	335.0	300.0	4.2	4.0	45	45	936	641
20	40.0	39.0	80.0	65.0	255.0	250.0	305.0	300.0	3.8	4.6	39	44	725	525
21	38.0	38.0	60.0	80.0	260.0	270.0	320.0	340.0	5.3	4.3	45	41	948	1049
22	40.0	43.0	40.0	70.0	265.0	250.0	320.0	320.0	8.0	4.6	44	40	936	616
23	40.0	40.0	80.0	80.0	255.0	280.0	310.0	340.0	3.9	4.3	40	43	961	701
24	40.0	42.0	95.0	65.0	245.0	260.0	300.0	340.0	3.2	5.2	40	45	920	761
Average	39.5	39.7	76.1	70.9	256.9	251.3	315.2	315.6	4.3	4.5	41.7	43.0	875.4	740.7
Stan dev	1.532261755	2.7103532	11.7470317	9.744191878	9.533978138	13.693064	11.275133	26.1397789	0.948732149	0.829354213	2.56191448	1.87614699	154.132865	144.129314
T test	7.45E-01		1.04E-01		1.05E-01		9.43E-01		3.15E-01		6.00E-02		3.06E-03	
Probability %	25.5		89.6		89.5		5.7		68.5		94.0		99.7	

Trial map #: RSV03080 Location: King City Ranch/lot: 203 Date evald: 6/17/03
 Wet Date: 4/9/03 Grower: Mission Commercial Sun Belt Eval by: dg/mk

	Date Mature	Days to Maturity	Color
Napoleon	6/19/03	71	5gy 5/6
King Henry	6/18/03	70	5gy 5/6

Sample #	Core length (mm)		Core diam. (mm)		Heart length. (mm)		Head length (mm)		Head Length:Core Length		Frame diam (cm)		Head wt. (g)	
	Napoleon	Tall Guzman	Napoleon	Tall Guzman	Napoleon	Tall Guzman	Napoleon	Tall Guzman	Napoleon	Tall Guzman	Napoleon	Tall Guzman	Napoleon	Tall Guzman
1	30.0	35.0	35.0	40.0	202.0	170.0	275.0	235.0	9.2	6.7	45	32	488	556
2	34.0	42.0	35.0	44.0	222.0	220.0	295.0	280.0	8.7	6.7	42	40	799	475
3	33.0	43.0	40.0	40.0	225.0	195.0	280.0	264.0	8.5	6.1	42	39	813	580
4	28.0	60.0	40.0	41.0	215.0	215.0	275.0	325.0	9.8	5.4	41	40	679	500
5	41.0	40.0	40.0	37.0	222.0	200.0	287.0	270.0	7.0	6.8	37	41	840	660
6	45.0	50.0	40.0	40.0	217.0	240.0	276.0	310.0	6.1	6.2	40	40	626	598
7	45.0	37.0	40.0	40.0	210.0	190.0	290.0	255.0	6.4	6.9	42	40	623	686
8	38.0	52.0	42.0	35.0	180.0	240.0	282.0	295.0	7.4	5.7	43	41	697	570
9	35.0	42.0	40.0	42.0	217.0	250.0	290.0	300.0	8.3	7.1	38	38	595	612
10	45.0	47.0	45.0	40.0	215.0	220.0	280.0	260.0	6.2	5.5	37	34	525	635
11	44.0	38.0	42.0	44.0	212.0	190.0	265.0	275.0	6.0	7.2	36	39	529	724
12	30.0	38.0	38.0	40.0	210.0	230.0	275.0	273.0	9.2	7.2	41	34	649	608
Average	37.3	43.7	39.8	40.3	212.3	213.3	280.8	278.5	7.7	6.5	40.3	38.2	655.3	600.3
Stan dev	6.4994172	7.32782162	2.8001623	2.527125568	11.94019187	24.5258058	8.4512864	25.231654	1.35828858	0.654469147	2.7743413	3.0698929	116.16221	71.775323
T test	3.55E-02		6.51E-01		8.92E-01		7.64E-01		7.77E-03		8.34E-02		1.77E-01	
Confidence Level %	96.4		34.9		10.8		23.6		99.2		91.7		82.3	

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) PROGENY ADVANCED GENETICS, INC.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER PX377	3. VARIETY NAME NAPOLEON
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) 1536 B MOFFETT ST. SALINAS CA 93905	5. TELEPHONE (include area code) 831-794-4450	6. FAX (include area code) 831-751-6032
	7. PVPO NUMBER 200400033	

8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain. ☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company? ☒ YES ☐ NO
If no, give name of country

10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

☐ YES ☐ NO If no, give name of country

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?

☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (if needed, use reverse for extra space):

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.